

### REMARKS

In response to the office action mailed May 17, 2007, Applicant submits the following remarks. Claims 1, 19-20 have been amended to include the subject matter of claims 10 and 12. Claim 11 has been amended to change dependency to claim 1. Claims 10 and 12 are canceled.

#### Section 102 Rejections

Claims 1-5, 7-8, 13 and 18-21 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Publication No. 2005/0113002 ("Chen"). Applicant respectfully traverses.

Amended claim 1 is directed to a retaining ring with a generally annular body having a bottom surface and an outer diameter surface, wherein the bottom surface includes a plurality of channels, each channel having substantially vertical side walls, and the outer diameter surface includes a ledge and the vertical side-walls extend to substantially the same depth as the ledge. Amended claim 19 is directed to a carrier head with a retaining ring having the aforementioned limitations. Amended claim 20 is directed to a method of polishing which uses a retaining ring having the aforementioned limitations.

Chen describes a retaining ring with channels 304 (FIG. 3A). However, Chen is silent regarding any features on the outer diameter surface of the retaining ring. Because Chen fails to suggest or disclose a ledge on an outer diameter of the retaining ring, applicant submits that claims 1, 19 and 20 as amended, and the claims that depend therefrom, are not anticipated by Chen.

Claims 1-3, 7-8, 11, 13 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,419,567 ("Glashauser"). Applicant respectfully traverses.

Glashauser depicts a retaining ring 300 with a planar outer diameter (FIGS. 5, 8 and 9). Thus, Glashauser also fails to suggest or disclose a ledge on an outer diameter of the retaining ring. Applicant submits that claims 1, 19 and 20 as amended, and the claims that depend therefrom, are not anticipated by Glashauser.

Applicant respectfully requests withdrawal of the anticipation rejections in light of the amendments to the claims.

Section 103 Rejections

Claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Chen or Glashauser. Applicant respectfully traverses.

Claim 9 depends from claim 1 and necessarily requires all of the limitations of claim 1.

As noted above, Chen and Glashauser fails to suggest or disclose a ledge as required by the claims. Therefore, there is no *prima facie* case of obviousness pending after the amendment to claim 1.

Claims 11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of U.S. Publication No. 2003/0070757 ("DeMeyer"). Applicant respectfully traverses.

Again, Chen fails to suggest a ledge. DeMeyer shows a bottom surface with channels (FIG. 1C) and a taper between the outer diameter surface and the lower surface (see FIG. 5A). There is no reason provided for the taper. There is no indication that the taper has any relationship with the channels. Thus, DeMeyer fails to suggest or disclose a ledge as required by the claims. For at least this reason, Applicant submits that no *prima facie* case of obviousness stands with respect to 11 and 14-17.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glashauser in view of DeMeyer. Applicant respectfully traverses. As noted above, Glashauser fails to suggest or disclose a ledge. Further, DeMeyer fails to suggest a ledge as required by the claims. Applicant therefore submits that no *prima facie* case of obviousness has been made with respect to claims 14-17.

Applicant notes that references to Hiroshi and Kajiwara are made throughout the office action. However, because the headings did not refer to either of these references and because the Examiner on page 2 of the Office Action notes that the rejections over Hiroshi and Kajiwara were withdrawn, Applicant understands that the mention of these references later in the office action was merely typographical errors.

Applicant respectfully requests withdrawal of the obviousness rejections.


Applicant : Chen et al.  
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Respectfully submitted,

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